

Comet e, 1889 (Davidson).

Greenwich Mean Solar Time.	Observer.	R.A.		Corr. for Par. Refraction.		N.P.D.		Corr. for Par. Refraction.	No. of Comp.	Apparent R.A.			Apparent N.P.D.	Comp. Star.
		m	s	s	s	'	"			h	m	s	'	
1889. d h m s														
Aug. 5 10 21 30	C.	-0	0'55	+0'70	0'00	-6	37'0	-14'9	2	...	...	...	...	a
5 10 23 9	...	-1	20'20	+0'70	+0'10	-11	4'2	-14'9	1	...	...	...	...	b
28 11 18 49	C.	-1	30'65	+0'50	0'00	+12	15'5	-6'9	2	...	...	...	...	c
29 9 10 1	...	+0	42'75	+0'40	0'00	+1	57'7	-5'5	2	...	...	...	...	d
29 9 21 4	...	+0	54'00	+0'40	0'00	-8	55'6	-5'5	3	...	...	...	...	e
30 9 6 19	L.	-0	32'75	+0'36	0'00	-4	38'8	-5'3	8	...	...	...	...	f

Mean Places of Comparison Stars.

	Star's Name.	R.A., 1889'o.		N.P.D., 1889'o		Authority.
		h	m s	o	'	
a	Anonymous.					
b	Anonymous,					
c	B. D. + 24°, 2985	16	11 7	65	39	Bonn Observations, vol. iv.
d	B. D. + 24°, 2987	16	11 20	65	27	"
e	B. D. + 24°, 2985	16	11 7	65	39	"
f	B. D. + 24°, 2995	16	15 39	65	8	"

Notes.

The observations are corrected for parallax and refraction.
The initials C., L., and H. are those of Mr. Criswick, Mr. Lewis, and Mr. Hollis respectively.

N N

Ephemerides of the Satellites of Saturn, 1889-90. By A. Marth.

In the following ephemerides the five inner satellites are assumed to move in circular orbits in the plane of the ring, the ascending node N and inclination J of which, in reference to the plane of the Earth's equator, are assumed to be

$$\text{for } 1890.0 \quad N = 126^{\circ}.7048. \quad J = 6^{\circ}.9845.$$

In the first table P denotes the position-angle of the minor axis of the ring, $L + 180^{\circ}$ the planetocentric longitude of the Earth referred to the plane of the ring, $\Lambda + 180^{\circ}$ that of the Sun, or $\Lambda - L$ the difference between the two. The last column contains the values of $\log v = 0.950 - \log \Delta$, the *Nautical Almanac* values of the distances Δ of the planet from the Earth being so altered as to take the equation of light into account.

Greenwich Noon.	P	L	Latitude of Earth Sun above plane of Ring.		$\Lambda - L$	Log v.
1889.						
Oct. 24	353 ⁰ 728	155 ⁰ 275	8 ⁰ 839	11 ⁰ 314	4 ⁰ 802	9.963853
29	754	155.645	8.668	11.240	5.007	.967141
Nov. 3	353.777	155.986	8.513	11.166	5.182	9.970585
8	.798	156.295	8.375	11.091	5.325	.974166
13	.817	156.568	8.256	11.017	5.433	.977867
18	.834	156.805	8.155	10.943	5.505	.981667
23	.848	157.005	8.074	10.868	5.539	.985542
28	.859	157.166	8.013	10.794	5.534	.989464
Dec. 3	353.867	157.286	7.973	10.719	5.490	9.993404
8	.872	157.366	7.955	10.644	5.405	9.997331
13	.875	157.404	7.958	10.570	5.278	0.001217
18	.874	157.400	7.983	10.495	5.109	.005029
23	.870	157.354	8.029	10.420	4.899	.008732
28	.863	157.267	8.096	10.346	4.648	.012288
1890.						
Jan. 2	353.853	157.141	8.182	10.271	4.357	0.015663
7	.841	156.976	8.288	10.196	4.028	.018822
12	.826	156.775	8.412	10.121	3.663	.021732
17	.809	156.540	8.552	10.046	3.264	.024362
22	.790	156.274	8.706	9.971	2.835	.026680
27	.769	155.980	8.872	9.895	2.378	.028654
Feb. 1	353.746	155.664	9.048	9.820	1.899	0.030264
6	.722	155.331	9.232	9.745	1.402	.031491
11	.698	154.984	9.421	9.670	0.891	.032321